

## **REMARKS**

Applicant has carefully reviewed the office action mailed on July 19, 2005 and respectfully submits the following remarks.

***Claims 1-32 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement.*** Applicant respectfully traverses this rejection of the claims.

The Examiner states, at page 2 of the office action, that there is not adequate disclosure for how constant power is dissipated in the device. The Examiner focuses on the description of a power feedback resistor, at page 15 of the specification. This demonstrates, however, a mischaracterization of the language at page 15, where it is stated, "When the present invention was utilized by adding a power feedback resistor,...." It is clear from a reading of the specification that this clearly shows that one resistor was added and not a "feedback circuit" as the examiner states. Further, the resistor is termed a "power" resistor, so as to be distinguished from the "signal" resistor of page 15 line 13, for instance, and so as to be in general accord with the specification and claims of the present invention in which the term "power resistor" occurs approximately 38 times.

The resistor is further termed a "feedback" resistor, and this is the only occurrence of the word "feedback" in the specification or claims of the present invention. The present invention teaches that the calculated or measured total power (dissipated in the signal resistor(s)) is subtracted from a (larger) given or assumed constant power, and the resultant difference in power is then caused to be dissipated in the power

resistor(s), thereby forcing the combined power dissipated in the signal resistor(s) and power resistor(s) to be constant at the given or assumed power level. The power dissipated in the power resistor(s) could be said to be “fed back”, based upon this process, without being restricted to the use of any particular circuitry. This is the proper interpretation of the word “feedback” in the phrase “power feedback resistor”. Further, it is important to note that page 15 lines 11-23 of the specification describe the results of a lab experiment, being included as supplementary, exemplary information only.

It is believed that this matter may be resolved by changing “power feedback resistor” to “power resistor”. Page 15 line 18 states that “the present invention was utilized by adding” this resistor, so it is clear that signal resistors, the larger given or assumed constant power, the calculation of the power difference, and the dissipation of this difference of power in the power resistor are all as described in the specification.

Moreover, with regard to the assertion that there is not adequate disclosure for how constant power is dissipated in the device, please consider that the specification discusses, discloses and otherwise teaches constant power throughout. Consider, by way of example, the following references to the specification as filed: page 6, lines 11-28; page 9, lines 13-31; page 11, lines 11-29; and page 14, lines 12-31.

For the foregoing reasons, Applicant submits that 35 USC 112, first paragraph, written description rejection of claims 1-32 has been overcome. Applicant therefore respectfully requests that this basis of rejection be withdrawn at the earliest possible time.

***Claims 1-32 are rejected under 35 USC 112, first paragraph, as based on a disclosure which is not enabling.*** Applicant again must respectfully traverse this ground of rejection.

The examiner, at page two of the office action, states that the “power feedback resistor and circuit” discussed in the above 35 USC 112, first paragraph, rejection of the claims is critical or essential to the practice of the invention. Applicant must respectfully, but strenuously, traverse this reasoning.

As described at length above, the reference to the power feedback resistor at page 15 has been misinterpreted by the examiner. It is respectfully submitted that the amendment to the specification overcomes the rejection of the claims on this basis. Therefore, reconsideration and withdrawal of the non-enabling 35 USC, 112, first paragraph, is earnestly solicited at the examiner’s earliest convenience.

***Claims 1-32 are rejected under 35 USC 102(b) as being anticipated by Ludwig (4,339,743).*** Applicant respectfully traverses this rejection of claims 1-32.

The Examiner asserts, “*Ludwig discloses the claimed invention at Figs. 1-3 with any of two[sic] the resistors 50, 54 and 56 as input or input power resistors and any two of the terminal 68 forming ports 68, where there are many combinations since there are 6 ports.*”

Ludwig, however, shows electrically interconnected resistors; please refer to the schematic of Ludwig's Figure 1 and the interconnects shown mechanically in Figures 2, 3. The claimed invention, conversely, does not recite electrically connected signal port resistors and power port resistors. Claim 1, for instance, recites that the single signal port accepts an input signal and the single power port accepts an input power signal. This is a basic difference between the claimed invention and the Ludwig reference. It should be noted that it is not possible to obtain the claimed arrangement of the present invention from a rearrangement of the resistors of Ludwig Figures 1-3, which requires electrically interconnected components.

Moreover, the examiner does not show that Ludwig teaches a thermal linking agent between all resistors such that all resistors remain at the same constant temperature, as recited in the third element, for instance, of independent claims 1, 9, 17, 25, and thus all dependent claims of the present invention. Indeed, this recitation of the claims is never addressed in the claim rejections of the office action.

These remarks apply to claim 1, as well as to all other rejected claims, including dependent claims.

With regard to claim 32, in which a plurality of signal ports and power ports are recited, it is noted that the resistors 50, 54, and 56 of Ludwig are electrically interconnected and therefore cannot be rearranged as signal port resistors and power port resistors of the claim. It is not seen that a plurality of signal ports and power ports could be fashioned from the teachings of Ludwig.

Furthermore, no thermal coupling between signal port resistors and power port resistors is claimed by Ludwig, whereas the claimed present invention recites thermal coupling between signal port resistors and power port resistors. Again, as discussed above, Ludwig never contemplates thermal coupling.

With regard to the total power dissipated in the Ludwig network, this is irrelevant insofar as it has been shown that other elements of the claims are not taught by Ludwig.

With regard to claims 2-8, these claims depend from claim 1, which has been shown to be patentably distinct from the Ludwig reference. Moreover, with regard to claim 7, it is noted that this claim recites the makeup of the input signal and power ports, which, again, are not disclosed or taught by Ludwig. Please reference the discussion of separate ports of the claimed invention versus the electrically interconnected signals of Ludwig, above.

With regard to claim 8, the basis of rejection is not understood. The claim does not state that the input signal resistor and the input power resistor may be the same, as stated in the rejection.

Also, the discussion at page 3 of the office action directed to variance of the total power in response to temperature coefficients versus the total power of the Ludwig device is not understood. It is also not understood against which claim(s) this comment is directed. Clarification is respectfully requested.

In light of the foregoing arguments, reconsideration and withdrawal of the 102(b) rejection of claims 1-32 is earnestly solicited at the examiner's earliest convenience. A notice of allowance of all the claims respectfully requested.

***Claims 1-8 are rejected under 35 USC 102(b) as being anticipated by Thompson.*** Applicant respectfully traverses this rejection of claims 1-8.

Again, it is not understood how the resistors of Thompson's Figure 1 anticipate the resistors of the electrically distinct single signal port and single power port of Applicant's claim 1. Resistor 1 and resistor 2, as shown in Thompson's Figure 1, are electrically interconnected. They therefore may not properly be construed as an input signal resistor and an input power resistor of the claims.

It is not seen as relevant what the function of structural member 3 of Thompson Fig 1 does, because it is not proper to interpret the two resistor network of Thompson as the resistor network of the present claims. Again, the resistors of Thompson are electrically interconnected, whereas the present claimed invention are not.

It further follows that whether the total power is constant or not in the Thompson network is irrelevant, as it fails to cure the defect noted above.

With regard to claims 2-8, these claims depend from claim 1 which Applicant respectfully submits has been shown to be patentably distinct over the Ludwig and Thompson references of record. Reconsideration and allowance of these claims, as

well as all claims, is therefore earnestly requested at the examiner's first convenience.

All claims 1-35 are believed to be in allowable condition and such allowance is respectfully requested at the Examiner's earliest convenience. The Examiner is cordially invited to contact the undersigned if there are any questions about this application or response.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Renee' Michelle Leveque", is written over a horizontal line.

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